

Volume 5-Issue 1  
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# Show Me Agriculture

## TEACHER PAGE USING SHOW ME AGRICULTURE

**Show Me Agriculture** provides up-to-date insights about Missouri Agriculture. This issue focuses on Thanksgiving, our all-American food holiday, and some of Missouri's important agricultural industries - turkeys, pumpkins and apples. Each of the activities in **Show Me Agriculture** has been developed to meet specific Show me Standards.

Page 1 - 4. GOALS 1.1, 1.5, 1.7, 1.10, 3.5, 4.1; CA 3; SS 2, 4, 5, 6

Thanksgiving is an excellent time to talk about Missouri agricultural products. Of the five food items listed in the first paragraph, three are produced in relatively large amounts in Missouri. Turkeys lead the list because Missouri ranks fourth in total turkey production. Most turkeys are raised in central and southwestern Missouri. Apples and pumpkins are other important Missouri crops that will be discussed in other sections of this issue. Sweet potatoes can be grown in Missouri but we typically do not grow commercially large amounts of them. However, many Missouri gardeners enjoy producing them. Cranberries are a very interesting crop to study but they are not grown in Missouri at all. They require a climate much cooler than we have. Cranberries must be grown in a peat bog. Missouri has none.

The section explaining how turkeys are grown describes a tom turkey operation. There are some different ways in which turkeys are raised, but this section merely describes one typical method. The proper order for the five items is:

- 3 Poults grow into big turkeys on the farm.
- 5 A variety of turkey meat items can be purchased in grocery stores.
- 1 Hatching eggs are produced on breeder farms.
- 4 The grown turkeys are prepared for eating at the processing plant.
- 2 Eggs are hatched in incubators at the hatchery.

We hope students will enjoy learning some turkey trivia. Turkeys certainly are the all American bird. Chickens, although grown in large number now in the U.S., originated in Southeast Asia. The Ben Franklin story is always a fun one to discuss in an American History unit. We will be eager to see some of the re-designed quarters from the "What If?" page.

Page 5. GOALS 1.10, 3.2, 3.3, 3.5, 4.7; MA 1; SC 8; H/PE 2

Food safety is important to all of us. It is never too early to start learning about it. We all occasionally hear of a food borne illness resulting from a poultry product. In most instances, the problem is one of improper food handling or insufficient cooking. It would seem that our grandmothers and great grandmothers sometimes knew more about food handling than some of us do now. Hopefully, this page will cause students to think about proper thawing and cooking. At the same time, they can learn to interpret a label and do some calculations related to cooking. Answers to the questions are:

<sup>1</sup>. 23 pounds, <sup>2</sup>. 2 turkeys, <sup>3</sup>. 3 - 4 days <sup>4</sup>. 5 - 9 hours <sup>5</sup>. 3 - 3 1/2 hours <sup>6</sup>. 3 3/4 - 4 1/2 hours

Page 6. GOALS 1.2, 1.10, 2.7, 3.3, 3.5; SS 4; MA 1,6; SC 3

Many pumpkin patches are found in Missouri each fall.

Here are the answers to the pumpkin questions:

1. 300 plants
2. Pumpkin seeds germinate in about 12 days, so hers should germinate about June 24.
3. The pumpkins take 110 days to grow to harvest size. Have the students look at a calendar and count back 110 days, or have them work with the proper number of days in each month. June 22 is 110 days before October 10. Give the students a day or two leeway depending on whether they counted June 22 and October 10. Also some students may also add on another 12 days on the assumption that the 12-day germination was not part of the 110 days. Most seed packets are vague on this, so an answer of June 10 would be considered correct also. As you are aware, pumpkins do not "magically" ripen on exactly the 110th day. Ripening is a gradual process.
4. There will be 24 plants per 50 feet of row space. A thoughtful student may ask if we are planting at the very end of each row. That makes the answer 24. However, you might only have 21 plants per row. So 24 or 21 can both be considered correct.

Although Missouri is not a leading apple state, we do produce a large apple crop each year. Sizeable apple orchards are found everywhere in our state. Students will answer some apple questions on the crossword puzzle on the back page. Some of the common apple varieties that students may be familiar with are Jonathan, Granny Smith, Red Delicious, or Golden Delicious. Gardening or nursery catalogs are good picture resources to bring into your classroom or there are some good websites: <http://horticulture.missouri.edu/apple/> and <http://michiganapples.com> Apple varieties provide a good opportunity to create a graphic organizer with your class. Here is an example; however, you may wish to include other varieties and characteristics.

APPLE VARIETY	COLOR	RELATIVE SIZE	MAIN USE
Jonathan			
Granny Smith			
Red Delicious			
Golden Delicious			

The applesauce activity will require minimal explanation. Make sure students understand the plural rule and understand what plural means. We believe that the largest word that you can make from applesauce is "applause". Maybe some Missouri 4th grader will come up with a longer one!

Here is the solution to the crossword puzzle.

Across	Down
4. Cutting	1. Squash
5. Turkey	2. Hill
6. Orchard	3. Yellow
8. Beard	4. Cider
9. White	7. Gizzard
10. Poult	8. Brooder
12. Bronze	11. Tom

Call or write to request the national Ag in the Classroom newsletter "NOTES."

It's a great resource to find out what is going on with integrating agriculture into the classroom in all 50 states!

United States Department of Agriculture

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Additional Resources:

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Ag in the Classroom Program

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(573) 893-1400

e-mail: [dolson@mail.mofb.com](mailto:dolson@mail.mofb.com)

[www.mofb.org/aginclass.html](http://www.mofb.org/aginclass.html)

Call or write for more information on:

Credit courses for educators

Minigrant program

Various resources

For a listing of Missouri's pumpkin farms—retail and wholesale—including recipes, a pumpkin word find, and a pumpkin quiz, call 1-888-MOBRAND (toll free) or e-mail [agrimo@mail.mda.state.mo.us](mailto:agrimo@mail.mda.state.mo.us) to receive a copy of Missouri's Pumpkin Directory.

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